

REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 25-36 are now present in the application. Claims 25 and 31 have been amended. Claims 11-13, 23 and 24 have been withdrawn and hereby cancelled. Claims 25 and 31 are independent. Reconsideration of this application, as amended, is respectfully requested.

Interview With The Examiner

An interview was conducted with the Examiner in charge of the above-identified application on May 24, 2005. Applicants greatly appreciate the courtesy shown by the Examiner during the interview.

In the interview with the Examiner, Applicants' representative presented arguments with regard to the rejections under 35 U.S.C. § 103(a).

Specifically, it was argued that Kenny's masking oxide layer 550 fails to teach the sacrificial layer as recited in claims 25 and 31. The Examiner indicated that if Applicants amend claims 25 and 31 to recite the step of forming a sacrificial layer in the trench, claims 25 and 31 would overcome the 103 rejection in the instant Office Action.

Claim Rejections Under 35 U.S.C. § 103

Claims 25-36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hieda, U.S. Patent No. 5,736,760, in view of Kenny, U.S. Patent No. 4,801,988. This rejection is respectfully traversed.

In light of the foregoing amendments to the claims, Applicants respectfully submit that this rejection has been obviated and/or rendered moot. As the Examiner will note, independent claims 25 and 31 have been amended to incorporate the Examiner's helpful suggestions.

Independent claim 25 has been amended to recite a combination of steps including "forming a sacrificial layer in each trench, the sacrificial layer overlying the buried trench capacitor and being surrounded by an insulating spacer protruding the surface of the sacrificial layer".

Independent claim 31 has been amended to recite a combination of steps including "forming a sacrificial layer in the trench, the sacrificial layer overlying the top plate in the trench and being surrounded by an oxide spacer protruding the surface of the first masking layer".

Support for the above combinations of elements can be found in FIG. 3b-2 of the instant application. Applicants respectfully submit that the above combinations of steps as set forth in amended independent claims 25 and 31 are not disclosed nor suggested by the references relied on by the Examiner.

The Examiner has correctly acknowledged that Hieda fails to teach the the above combinations of steps as set forth in amended independent claims 25 and 31.

With regard to the Examiner's reliance on Kenny, this reference teaches that the masking oxide layer 550 (referred to by the Examiner as the sacrificial layer) has been formed on top of the thin insulation layer 215 to allow a trench 560 to be formed down into the substrate 210 (see FIGs. 3A-H; col. 5, lines 43-46; col. 6, lines 29-30). However, Kenny fails to teach forming the masking oxide layer 550 in the trench 560. Therefore, Kenny fails to teach "forming a sacrificial layer in each trench" as recited in claim 25 and "forming a sacrificial layer in the trench" as recited in claim 31.

Accordingly, neither of the references utilized by the Examiner individually or in combination teaches or suggests the limitations of amended independent claims 25 and 31 or their dependent claims. Therefore, Applicants respectfully submit that claims 25 and 31 and their dependent claims clearly define over the teachings of the references relied on by the Examiner.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 are respectfully requested.

CONCLUSION

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

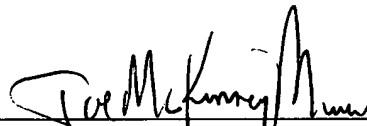
In the event there are any matters remaining in this application, the Examiner is invited to contact Joe McKinney Muncy, Registration No. 32,334 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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